

Praxis

Working to learn, learning to work

Alan Felstead, Alison Fuller, Nick Jewson and Lorna Unwin

Expanding opportunities for everyday learning necessitates a shift away from a mentality of learning to work to one of working to learn.

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Foreword

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Welcome to Praxis, the UK Commission for Employment and Skills' think piece series. Praxis seeks to explore key and emerging issues and ideas in employment and skills policy for discussion and debate.

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The UK's economic priority is growth – and growth requires highly skilled, flexible and productive workers and workplaces in every part of the economy. This must involve the participation of the UK working age population in formal learning opportunities and in gaining qualifications but it is also vital to recognise, as many employers will testify, that not all valuable learning is formal or accredited.

Learning is not something that only happens when we plan it; it is not restricted to the classroom and nor is it a 'one off' event that will, in isolation, transform an individual or workplace's productivity. Often the most powerful learning takes place through participation in everyday activities: by doing, we learn.

When it comes to learning at work therefore the very act of doing a job provides real opportunities to learn and develop; but not all jobs offer the same chances. What a job involves, how it is designed and how it fits into wider productive systems and processes beyond the workplace, impacts on how far an individual employee has the capacity to learn, grow and innovate in their role. *"The resources for learning lie all around in the workplace and in the wider productive system, but they need to be mobilised in order to play their part in supporting the sharing and creation of ideas"* (p22).

This edition of Praxis explores one way of investigating, codifying and actively promoting the embedded or intrinsic potential of work as a means of learning: through the **Working as Learning Framework (WALF)**. Drawing on a four year investigation into the relationship between workplace learning, the organisation of work and performance; this edition of Praxis highlights wide variances in the opportunities available to employees to learn and develop, even within jobs that are ostensibly identical. Why do some exercise instructors have more opportunity to learn and develop than others? How can changes to the management structures of primary care in the NHS impact on the capacity of Health Visitors to collaborate and innovate?

The answer, the authors argue, lies in the workplace but also, crucially, in the wider context of the productive systems and processes that shape the workplace as either an expansive or restrictive learning environment.

This is one of a series of Praxis papers¹ that seek to explore the nature of high performing modern workplaces, and highlight ideas for integrated policy development to enable the UK's employers to raise their ambition. This edition of Praxis prompts some useful questions, that are raised at the end of the paper and readers are encouraged to engage with this debate at www.ukces.org.uk/our-work/research-andpolicy/praxis.

Abigail Gibson
Senior Policy Analyst,
UK Commission for Employment and Skills

¹ See Francis Green (Edition 1) *Job Quality in the UK* (2009); Jill Rubery (et al., Edition 6) *Blurring Boundaries and Disordering Hierarchies: Challenges for employment and skills in networked organisations*; and David Coats (forthcoming) *Making Work Better*.

Author Biographies

Alan Felstead is Research Professor at Cardiff School of Social Sciences, Cardiff University. His research focuses on: the quality of work; training, skills and learning; non-standard employment; and the spaces and places of work. He has completed over 30 funded research projects (including eight funded by the ESRC), produced six books, and written over 150 journal articles, book chapters and research reports. His recent books include: *Improving Working as Learning* (with Alison Fuller, Nick Jewson and Lorna Unwin), Routledge, 2009; and *Changing Places of Work* (with Nick Jewson and Sally Walters), Palgrave, 2005. He is currently a Visiting Professor at the ESRC Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), Institute of Education, University of London. Alan is also a Visiting Research Associate at the UK Commission for Employment and Skills and is a member of its Network of Research Experts.

Nick Jewson is a Senior Research Fellow at Cardiff School of Social Sciences, Cardiff University. In collaboration with Alan Felstead at Cardiff University and Francis Green at the ESRC Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), Institute of Education, University of London, he is currently engaged in a large-scale research project on the impact of the recession on training. This project is funded by the ESRC/UK Commission for Employment and Skills Strategic Partnership.

Alison Fuller is Professor of Education and Work and Head of the Lifelong and Work-Related Learning Research Centre in the School of Education, University of Southampton. Her research interests include: apprenticeships, changing patterns of participation in education, training and work; education – work transitions, and workplace learning. Alison has recently (with Alan Felstead, Nick Jewson and Lorna Unwin) co-authored the book *Improving Working as Learning* and has been appointed to the UK Commission for Employment and Skills' Expert Panel. She is also co-director of the multi-disciplinary Work Futures Research Centre at the University of Southampton and a researcher in the ESRC LLAKES Research Centre (www.llakes.org).

Lorna Unwin is Professor of Vocational Education at the Institute of Education, University of London, and Deputy Director of the ESRC Research Centre LLAKES (Learning and Life Chances in Knowledge Economies and Societies). Her current research focuses on: the role of education, training and employment in urban regeneration; apprenticeship as a model of learning and an instrument of State policy; and workplaces as sites for learning. Her recent books include, *Improving Working for Learning* (2009), and *Communities of Practice: Critical Perspectives* (2008), both published by Routledge. Lorna is a member of the Expert Panel of the UK Commission for Employment and Skills.

Editors

Katherine Chapman and Abigail Gibson,

UK Commission for Employment and Skills

The views expressed in Praxis are those of the authors and do not necessarily represent those of the UK Commission for Employment and Skills.

Introduction: The Working as Learning Framework (WALF)

The realisation that workplaces are sites for learning that can improve economic performance is now taken very seriously by policy-makers. The fact that 80% of the workforce of 2020 are already in work today is often cited as an important driver for an increased focus on workplace learning, since most employees completed their compulsory schooling and initial skill formation many years ago (UKCES, 2010b: 9). In this Praxis paper, we seek to move the agenda beyond a focus on the quantity of qualifications and training programmes. Instead we need to look inside workplaces to see how work is organised, how new forms of expertise are emerging, how skills are being developed and utilised, and at the broader context in which workplaces operate. We need to ask why some workplaces create what we refer to as 'expansive' learning environments, whilst others are more 'restrictive'.

This Praxis paper presents a new analytical framework for understanding how learning at work is shaped by workplace contexts and considers how this understanding could be used by policy-makers and employers. It shows how learning in the workplace is impacted by an organisation's position in the production process and the effects of employee discretion and managerial decisions, which together can limit or support the opportunities for learning at work. It presents a new analytical framework that has practical as well as conceptual value. The ideas presented here and the research that informs them have international significance as, throughout the world, policy-makers, employers, practitioners and researchers seek ways to capitalise on the learning potential of workplaces to improve economic performance, individual life chances and skill levels.²

Learning at work – just as in life more generally – goes on everyday, regardless of the type or size of workplace or the nature of the work being done. Until relatively recently, workplaces were not recognised, at least in policy terms, as sites of learning. This is, perhaps, understandable as many people, including policy-makers, associate 'learning' with formal classroom or workshop-based instruction. Learning in the workplace, however, can take a variety of forms, ranging from formal training courses to solving problems as part of everyday work tasks. Often, it is a collective process in which work colleagues share and develop ideas and learn from each other.

Advances in the understanding and use of social theories of learning have helped to highlight the potential of the workplace for learning. These theories conceive of learning as a process of participation and transformation, and explore how, for people at work, learning is fostered through social relations and interaction with resources and ideas in the workplace (Sfard, 1998; Hager, 2004; Engeström, 2001). This is very different to the 'learning as acquisition' model which still dominates formal education and training, and emphasises visible, pre-determined outcomes, such as qualifications and certificates of attendance. The acquisition model of learning has until recently held sway over policy thinking, reflected, for example, in the use of qualifications as the proxy measure for skills (HM Treasury, 2006). This approach places little or no emphasis on helping employers reconfigure the way they organise work, but instead concentrates solely on getting more individuals qualified.³ By viewing working and learning as conjoined phenomena in the ways we explain here, employers could be helped to develop workforce development plans that are embedded in their business strategies.

It is, of course, much easier (though often more expensive) to send staff on formal, one-off training courses than to re-organise production processes, re-design jobs or re-negotiate organisational controls in order to expand opportunities for everyday learning. This necessitates a shift away from a mentality of learning to work to one of working to learn; that is, a shift from viewing learning as an event or episode to one in which learning is built into everyday activity. This agenda takes us beyond the particularities of work tasks into broader issues concerning the organisation of work and the pressures organisations face for survival and growth, which shape the context of learning.

² For a complete account of the research, see Felstead, A, Fuller, A, Jewson, N and Unwin, L (2009) *Improving Working as Learning*, London: Routledge, which won a Society for Educational Studies' prize for books of 'fundamental importance' published in 2009.

³ It should be recognised that more recently, there has been growing policy interest in how to improve skill utilisation in the workplace to increase both productivity and employee learning and development opportunities. Recent examples include the UK Commission's work on High Performance Working (2010a) and the Scottish Government's extensive work on Skills Utilisation as well as wider developments around leadership and management training, business support and increased employee involvement and engagement. For example see the MacLeod review of employee engagement (2009) and BIS, Skills for Sustainable Growth consultation (2010).

Although policy-makers, practitioners and researchers have become increasingly aware of the importance of these issues, all too often 'context' has remained a nebulous and poorly-defined concept. In response to this lacuna, we have developed the Working as Learning Framework (WALF) while undertaking a large-scale research project, funded by the Economic and Social Research Council.⁴ It specifies different types of learning contexts, presents a systematic analysis of their inter-relationships, and identifies their key features. WALF examines the connections between macro, meso and micro influences on workplace learning, and demonstrates how different types of workplace learning shape the overall attitudes, experiences and involvement of workers. WALF does not minimise the importance of individuals in the workplace or see them as passive players in a deterministic landscape. As other researchers have highlighted, individual employees, with their own biographies and learning histories, can exert agency in terms of the way they engage with opportunities to learn in the workplace, as well as creating opportunities for themselves and others (Billett, 2002; Hodkinson and Hodkinson, 2004). WALF shows how individuals and contexts affect each other, both in theory and practice.⁵

The WALF framework has practical as well as conceptual value. By shedding light on different types of learning contexts it can help employers to adopt the most appropriate workforce development strategies to maximise opportunities for learning at work. For policy-makers, WALF highlights where specific policy initiatives are likely to be more or less effective, by illuminating barriers within the organisation's productive system which might prevent learning in workplaces within that system. By drawing attention to how these production networks impact on workplaces, WALF points to the need for a holistic approach to the development of strategies designed to improve and expand learning at work.

⁴ The research reported here was funded under the Economic and Social Research Council's Teaching and Learning Research Programme (RES-139-25-0110A) – see <http://learningaswork.cf.ac.uk/>

⁵ The empirical evidence for WALF comes from around 500 interviews in a dozen sectors of the economy. The project deliberately cast its net wide in order to study contrasting types of workplaces, economic sectors, organisational structures, job tasks and employment relations. The project also included a large-scale quantitative element. In collaboration with the National Institute of Adult Continuing Education, two representative samples of employees were surveyed in 2004 and 2007 (Felstead *et al.*, 2005, 2007).

Using WALF to Understand Learning at Work

The Working as Learning Framework (WALF) brings together ideas from three different traditions in social science: a) from economic theory, the 'productive systems' model of economic activity; b) from the sociology of work, the notion of 'discretion' in employment relations; and c) from the literature on workplace learning, the 'expansive/restrictive' characteristics of learning environments.

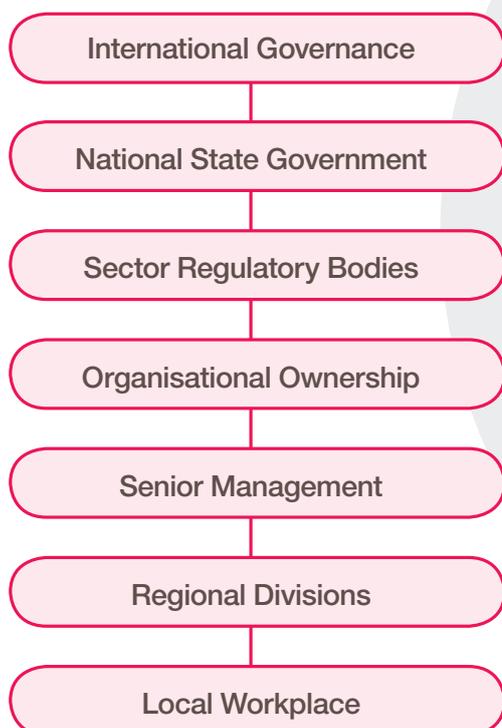
Productive Systems

Productive systems comprise:

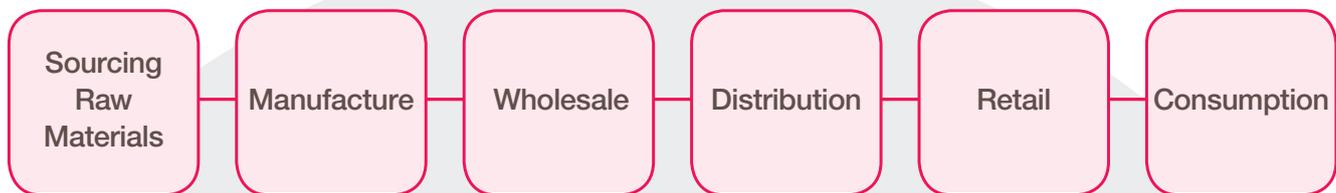
- the interlinked social networks through which economic activity is organised, and goods and services are produced and consumed;
- individuals who work in small groups through to those who operate in global financial and political systems;
- patterns of power and control exercised at various levels and by a variety of stakeholders.

The productive systems perspective gives us analytical purchase across the economy, including public and private sectors, manufacturing and services, voluntary and paid work. WALF identifies two axes of productive systems: vertical interconnections of scale, or 'structures of production', which range from international governance at the macro level down to the individual workplace (see Figure 1); and horizontal interconnections of transformation, referred to as 'stages of production' that flow from the sourcing of raw materials through to the consumption of end products (see Figure 2). Each axis is composed of constituent parts, which themselves take the form of networks of social relations.

Figure 1: Structures of Production



The vertical axis (see Figure 1) shows the continuum from micro- to meso- to macro-stakeholders that can be involved in the production of goods and services. Depending on the nature of the organisation and its business, the numbers of layers will vary. Where regulation is top heavy, the scope for discretion and independence among those lower in the hierarchy is often determined from above. However, work groups lower down may retain a degree of relative autonomy, potentially blocking, disrupting or 'getting around' the regulatory impact of macro influences.

Figure 2: Stages of Production

The horizontal axis shows the steps or stages through which raw materials are transformed into goods and services that are consumed by end-users (see Figure 2). These commonly include: sourcing raw materials; manufacturing processes; wholesale assembly; distribution; retail sales; and consumption by end-users. In the case of service sectors, the terms used will be different (for example, the ‘raw materials’ of a university would be ‘students’). The locus of control within such sequences can be of crucial significance. For example, large-scale retailers – such as supermarkets – may exercise powerful controls over firms engaged in raw materials extraction, product manufacture, storage or transport.

The vertical and horizontal dimensions of productive systems together shape learning at work. Productive systems differ with respect to the location of the principal levers of overall control within and between their structures and stages, as well as the relative autonomy of their constituent parts. Individuals and groups of workers may be viewed as a particular intersection of vertical and horizontal relationships. Their learning experiences are shaped by their connection to other workers who are ‘earlier’ or ‘later’ in the sequence of commodity production, as well as those ‘above’ and ‘below’ in hierarchies of regulation and control.

The Importance of Employee Discretion⁶

The controls exercised in productive systems are often embedded within the everyday tools and artefacts found in workplaces and affect the levels of discretion that employees can exercise over how they carry out their everyday work. Take the case of a supermarket chain where, for example, a device referred to as a symbol gun, used to track everyday in-store stock movements, enabled central office to be in command of the stock ordering patterns of local stores. In this case, however, some local managers discovered ways of partially circumventing the control exercised through the symbol gun. They were able to use this knowledge to adjust stock levels to improve the store’s results against key performance targets relating to sales, availability and waste. This example reflects the often contested nature of controls exercised within productive systems and highlights the degree of indeterminacy characteristic of even unequal power relations across the productive system (Fuller et al., 2007).

The concept of ‘discretion’ refers to the degree of autonomy and responsibility exercised by workers in the design, execution or evaluation of work activities and processes. Discretion may be exercised not only within workplaces but also along the vertical and horizontal dimensions of productive systems. Furthermore, the presence or absence of discretion is often a reflection of forces within the productive system as a whole. The exercise of discretion, in all its forms, introduces potential uncertainty, indeterminacy and risk into the work process. As a broad generalisation, management strategies may attempt to cope with uncertainty by either seeking to eliminate it, or by seeking to harness it to organisational goals. An example of the latter is the use of ‘high performance management’ techniques, which seek to maximise employee discretion, albeit within prescribed boundaries (UKGES, 2010a). Managers may, of course, apply contrasting strategies to different parts of the workforce.

⁶ See edition 1 of Praxis by Francis Green Job Quality in the UK (November 2009), for an exploration of similar themes.

The Creation of Learning Environments

WALF makes it possible to examine how productive systems, worker discretion and managerial decisions together shape contrasting learning environments. Learning environments are the bounded networks of social relationships in which workers interact with people, artefacts and devices that are intrinsic to the performance of their work tasks and roles (Fuller and Unwin, 2003 and 2004). For some employees, workplaces pose exciting challenges which stimulate their capacity for innovation. These 'expansive' learning environments are most commonly found where staff have higher levels of discretion, autonomy and responsibility. They are characterised by employee involvement in decision-making and problem-formulation, the sharing of conceptual and reflexive forms of knowledge alongside job-specific skills, encouragement to develop informal communities of practice, and personal rewards for those positively engaged in work tasks. They encourage workers to become flexible, questioning, creative and independent. For others, however, work tasks are narrow and learning is initiated from elsewhere. Their learning environments are characterised by limited work tasks, exclusion from decision-making, narrow definitions of relevant expertise and isolation of individual workers. Such 'restrictive' learning environments promote predictability, repetition and adherence to instructions and are reflective of low trust employment relations.

Illustrations from the Case Studies

Using the Working as Learning Framework (WALF) our case studies illustrate how exercise-to-music instructors, health visitors, product developers in sandwich manufacturing, car component workers, research workers, software engineers and call centre operatives experience learning at work. We outline some immediate and specific policy implications highlighted by each illustration.

Exercise-to-Music Instructors

By applying WALF, we found that two types of productive system characterise the work of exercise-to-music instructors⁷, with contrasting implications for the discretion enjoyed in developing and delivering classes. Many instructors work in the 'pre-choreographed' productive system, where the contents and form of classes are devised and minutely scripted by specialists, located far away from the point of delivery. These include:

- disc jockeys, who remix sound tracks in accordance with the rules of aerobic grammar;
- choreographers who put bodily movement to music;
- Master Trainers who serve as role models;
- marketers who package different types of class for sale.

In this productive system, a single, standardised, pre-packaged brand is duplicated throughout the world with no variation allowed. Instructors operate in a 'restrictive' learning environment and are discouraged from accessing broader learning experiences that might cause them to alter components of the classes they deliver. Their formal training intentionally limits what is taught and practised in the classroom. This reflects how these 'pre-packaged' classes are produced and what role instructors in this productive system are expected to play. The 'recipe following' nature of this learning means that their engagement with 'the product' is shallow.

Within the 'freestyle' productive system, on the other hand, instructors have greater autonomy. They select sound tracks and choreograph moves. Their work involves acquiring in-depth knowledge, skills and practices related to music, physical movement and co-ordination. This places them in a learning environment which is 'expansive' and casts them in the role of 'recipe writers' with a deep engagement with, and knowledge of, the product they produce.

The 'pre-choreographed' productive system dominates the timetables of large chains of health and fitness clubs across the UK. For employers, the formulaic solution offered by the 'pre-choreographed' productive system makes it possible to pay lower wages, cope with labour turnover and minimise problems associated with absenteeism. It also facilitates quality control and standardisation across establishments. In short, their work and learning is Taylorised; that is, everything is broken down so that it can easily be carried out, with little independent thought required. This is possible because the locus of control on the horizontal axis of the 'pre-choreographed' productive system is rooted at an early point in the stages which transform raw materials into finished goods and services for consumption. The point of control is far removed from the final destination of products and services, but nevertheless extends forward to the point of delivery. This produces a learning environment in which instructors find it difficult to deploy their knowledge, acquire new skills and improve crucial aspects of their working practices. By contrast, the 'freestyle' productive system offers instructors a more 'expansive' learning environment in each of these respects.

It is arguable that, instructors who deliver pre-packaged exercise class formats operate in a system which fulfils the criteria of 'licence to practise' regimes of occupational regulation (Kleiner and Krueger, 2010; Kleiner, 2000). To become an instructor new entrants have to find a registered venue(s) to ply their trade, demonstrate a certain level of competence (through possession of a fitness qualification) and successfully complete a training course

⁷ Exercise-to-music (ETM) instructors refer to individuals who run exercise classes that are 'regulated' by the tempo and style of music, as opposed to circuit trainers or aqua-fit instructors, for example, who use music as a background accompaniment to exercise.

for each type of class they wish to teach. They can then teach at any site which holds the appropriate licence. In turn, the commercial licensing organisation licenses venues, maintains an instructor register, provides regular training updates and collects fees from clubs and instructors for the services it provides. It is therefore illegal (from a commercial law point of view) for an unlicensed outlet to have such classes on its studio timetable or for an unregistered instructor to take these classes.

'Licences to practise' have the potential to maintain and raise the skill levels in sectors where they operate, although previous literature has identified the risks involved (Stanfield et al., 2009: 47-51). Our research shows that licences to practise can in fact be detrimental to raising skill levels in particular sectors. In exercise-to-music, occupational licensing permits thousands of instructors to deliver classes which are devised, scripted and updated by just a few individuals located earlier in the stages of production. This makes it easier for a business model based on high labour turnover, high rates of absenteeism and low paid staff to survive and even thrive. However, the quality of the learning experience for these instructors is not one in which their horizons are widened and their abilities extended, but one in which they are taught to conform. So, in the words of one respondent, while '[This] is a benefit to the industry ... there's no learning curve for the instructor'. This suggests that 'licence to practise' schemes are likely to vary considerably not only in terms of their constitution but, more importantly, in terms of their potential to raise employer demand for skills, training and learning. Viewed through the lens of WALF, this suggests that despite the same wrapping the content and consequences of each 'licence to practise' regime will vary from case to case.

Furthermore, this understanding of how 'pre-choreographed' productive systems have restricted the opportunities for workplace learning poses a significant challenge to policy-makers seeking to upgrade skill levels. WALF shows that the real challenge for policy-makers and sector-bodies is to find ways to incentivise companies which thrive on low-pay, low-skill business models to adopt more ambitious business strategies which require and utilise higher level skills.

Health Visitors

We studied a group of health visitors in the NHS who wanted to reconfigure their work organisation, expand their learning opportunities and collaborate more effectively; in short, to create an 'expansive' learning environment. Long-standing 'old timers' in the group inspired more junior colleagues to claim and exercise discretion and autonomy in redefining their professional mission. This provided a practical and emotional bond that united the group, despite their dispersal across four General Practitioner (GP) surgeries. As a result, the group developed a raft of innovative new services and more efficient ways of working. The horizontal axis of their productive system facilitated these developments by requiring them, on a daily basis, to engage in reflexive involvement with a wide range of clients and multiple types of professional colleagues. Collaborative team working – in order to share skills among colleagues, widen services for families and enhance co-operation with other agencies – was a logical response to the demands of the horizontal axis.

However, tensions and cross-cutting currents in the vertical axis of their productive system did not sustain these conditions. The health visitors in the case study were subject to a variety of different managerial lines of control, including from GPs, Primary Care Trusts (PCTs) and Children Centres. Initially, gaps in the vertical axis of the productive system afforded sufficient discretion for an enterprising group lower down the chain to seize the initiative and, without prompting from management, develop new ways of working. However, in the longer term, the pressures of the vertical axis of the productive system constrained their autonomy and eroded their

confidence. They were caught between the conflicting demands of different sources of authority, management and obligation. They tried to renegotiate relationships with each of these, while at the same time asserting professional independence from all. This proved to be a difficult and debilitating task. They could not discover an organisational context they could trust to respect the kind of professional discretion and self-directed 'expansive' learning to which they aspired. As a result, the innovative group remained localised and vulnerable to disruption, unable to roll out its vision. The potential for 'expansive' learning, inherent in the diverse and multiples tasks that comprised the horizontal axis of the productive system, was smothered by forces generated within the fractures and fissures of the vertical axis of the productive system. Early enthusiasm was dissipated and the drive towards innovation petered out.

This case study vividly demonstrates one of the key policy implications of WALF; that is, the critical importance of the management of learning in the workplace. Learning will always occur at work, but the task of managers is to inspire, facilitate, channel and reward learning environments in ways which contribute to the overall objectives of the organisation. Failure to address this key function can result in learning processes that are fragmented, fractured, unproductive, contradictory, dissipated or 'restrictive'.

At first, the innovative ideas of the health visitors in this case study flourished in a climate of benign neglect from managers. Having overcome some initial opposition, the health visitors were allowed to 'do their thing' provided that they did not cause problems for others in the medical division of labour. Later on, senior managers found themselves under great pressures from central government to cut costs and pursue prescribed policy initiatives. In their haste to respond, they cut across and undermined the emerging new paradigm of community care developed by local health visitors. If they had turned to the practices of the health visitors, senior managers could have achieved savings and implemented policy, at the same time as greatly enhancing the working lives of employees and the welfare of patients.

The UK Government is consulting (at the time of writing) on proposals to devolve more commissioning of health services and associated budgets to GPs and away from PCTs (DoH, 2010). Arguably, this will simplify and clarify lines of managerial responsibility, leading to greater specification of the learning environments of health visitors, and others, who are based in GP premises. However, it should also be recognised that, in this case study at least, some GPs had very traditional and 'restrictive' conceptions of the roles of health visitors and initially strongly opposed new ways of working. Moreover, some health visitors deferred to their authority and busied themselves in routine practices that were approved by doctors but with little room for innovation to meet the needs of mothers and babies on the ground. A strengthening of the conventional medical division of labour within GP practices is not necessarily, then, conducive to innovative thinking and bold initiatives in the provision of community health services. This case study highlights the importance of developing effective leaders and managers in organisations, who are able to understand and maximise the skills of the workforce in a way that aligns with business need. It shows that greater employee discretion and engagement can generate innovation which can ultimately benefit the individual, through greater autonomy, the organisation, through efficiency savings, and the 'customer' through an enhanced service.

Making Sandwiches

In commercial sandwich making, there is a well-known contrast between the highly circumscribed working lives of factory operatives and the more creative learning environments of those engaged in product development. Less well-known is that the degree of autonomy enjoyed by product developers itself varies according to the type of productive system in which they are located. Where supermarkets exercise high levels of control back along the horizontal axis of the productive system, product developers in sandwich manufacturing firms operate within guidelines prescribed from outside. In contrast, product developers employed by sandwich manufacturers operating in productive systems outside the sway of supermarkets have greater scope and latitude.

This case study highlights the importance of identifying the most potent pressure points within particular productive systems. Once identified, this will help sector bodies, employer networks and group training associations to see where the potential for leverage over learning is greatest. In the case of retailing, for example, it is commonplace to accuse supermarkets of abusing their market power by forcing local shops out of business, squeezing suppliers' margins unfairly, and insisting on unreasonable delivery and service arrangements. However, it is less widely appreciated that the market power of large supermarkets is central not only to how retail stores operate at the point of sale but also to how, why and through what means they are able to shape the labour process of the many suppliers who produce the products they sell. Most notably, this includes the nature of workplace learning experienced by suppliers that are often dependent on one supermarket for most (or even all) of their business. Such suppliers typically specialise in a very narrow range of products – such as high volume, low cost, easy-to-produce sandwiches. The relevant regulatory authority – the Competition Commission – has a narrow remit which allows it to examine the detrimental effects that market power has on customers alone. This is assessed in terms of customers being offered a higher priced, lower quality and narrower range of products to purchase (Competition Commission, 2003: 6). Its remit does not extend to the effects on workers positioned in different parts of the productive system and the associated implications for workplace learning. In order to effect significant change in workplace learning throughout the retail chain, WALF suggests that the relevant sector bodies – such as Sector Skills Councils and trade unions – need to highlight the detrimental effect that market power may have on other stakeholders and their learning opportunities. Working with competition authorities in this way could help sector bodies, employer networks and group training associations identify, and try to address, instances where the productive system is minimising opportunities for workplace learning.

Car Components

In another case study of two component manufacturers in the car industry, we also encountered strong lines of control across the horizontal axis of the productive system. Component purchasers, located further down the supply chain, demanded very high levels of proven quality control from their suppliers as well as competitive prices. In order to demonstrate their abilities both companies introduced competence training and assessment programmes for shopfloor operatives. In one case, the artefacts created by this approach proved to be a very effective way of bringing different skills and grades together, opening up a space for communication and providing a vehicle to articulate and validate tacit skills. Consequently, it opened up a more 'expansive' conception of workforce development. In the other company the competence-based approach was implemented in an innovative and developmental way and employees felt it was beneficial. However, the intervention was viewed by senior management simply as a tool in securing competitive advantage. The programme was deemed to have served its purpose when the target group had all been accredited and hence the potential for ongoing workforce development was lost.

The implementation of competence-based qualifications (NVQs) in both companies was supported by government funding. However, in one company, the initial sense of achievement that employees enjoyed was soon reduced as they realised that there was no plan in place for them to progress further. The company had achieved its immediate goal of meeting the quality assurance requirements of the parent company, but did not see the longer-term benefits of building on the raised motivation of the workforce for further learning. The training manager, in this instance, was not part of the senior management team and lacked the authority to challenge this view. He had discretion in terms of how 'to get this done', but he was not able to use the opportunity provided by the NVQ funding to make any longer-term or more radical changes to work organisation, skills and workforce development. In contrast, the training manager in the other firm had more authority to make such strategic decisions. Training in this company was linked to the Key Performance Indicators (KPI) that drove the management of shopfloor performance. The number of NVQs attained by employees was counted, updated and displayed on KPI noticeboards along with data relating to faults, productivity and so on. Moreover, the

training manager's decision to recruit and train around 90 employees to act as workplace tutors ensured that the company's goals to upskill the workforce, through the opportunity provided by the NVQ programme, were widely distributed and embedded in the workplace through the process of high employee involvement.

Using WALF to understand and interpret the contrasting experience of NVQs shows that managers responsible for the delivery of training need to have sufficient discretion and status in the productive system in order for workforce development to be both effective and sustainable. High employee involvement, through workplace 'tutors' or 'champions' is crucial to effectively embed a culture of learning in the workplace. This is an important message to employers who want to make the most out of their workforce and maximise the impact of training. For policy-makers it highlights the limitations of policy designed to increase the stocks of qualifications through one-off interventions. Qualifications can be a powerful incentive for workplace development, but they are not enough on their own to produce new learning and increase skills. In addition, employers need to be encouraged to develop and embed workforce training activities as a central component in business strategy, in this case through KPIs which drove shopfloor performance.

Software Engineers and University Contract Researchers

It is commonly presumed that 'knowledge workers' will enjoy 'expansive' learning environments. We examined this presumption in a comparative case study of software engineers in a private sector company specialising in leading edge technology and a prestigious research intensive university. Both groups of workers were motivated primarily by intellectual curiosity rather than financial reward. Moreover, the horizontal axis of their respective productive systems was broadly similar. However, in the software company the vertical axis of control was truncated and integrated. As a result, the software engineers enjoyed a very high degree of discretion to develop their intellectual interests and were helped to develop skills in ways that matched their diverse abilities and inclinations. They felt supported and trusted by senior company managers, with whom they were in close contact (Unwin et al., 2007). In contrast, in the university the vertical axis of the productive system was extended, hierarchical and fragmented. Many researchers felt distant from senior managers, at the mercy of short-term pressures and insecure about their future employment and career prospects. Recent changes intended to improve the employment position of university research workers on fixed term contracts appear to have been of little benefit because they do not substantially alter the overall pressures exerted by the vertical axis of the academic productive system. Government and funding councils need to think how they can encourage and support universities to think seriously about themselves as workplaces. Although universities offer 'Staff Development' programmes for their employees, these are focused on the individual and tend not to form part of a more holistic workforce development strategy.⁸

Public Sector Call Centre Workers

The final case study that we reflect on here concerns a call centre, which had been set up as the initial point of contact for members of the public seeking services from a local authority. Its establishment shifted the balance of power away from service departments which no longer acted as the first port of call for queries. This initiative was part of a long standing strategy of the council executive and elected politicians to recapture central organisational control over semi-autonomous service departments. However, the immediate reason for the call centre to be created was as a response to pressures from central government for local authorities to make economies. The call centre became the pivotal point in the horizontal process of production linking members of the public with service departments. As a result, call centre operatives took over a steadily increasing range of the work tasks and responsibilities and their strategic location in the organisational structure enabled them to exercise a degree

⁸ It is salutary to note that only one university features in the 2010 Sunday Times Best 75 Public Sector Bodies List (the Open University).

of surveillance over service department procedures and practices. This regulatory function was encouraged by senior council leaders, not least because the call centre was based in the chief executive's department. Managers of service departments perceived the call centre as a curb on their autonomy and an infringement on aspects of their operations. Call centre operatives, therefore, found themselves encountering a degree of resistance and obstruction in their work from co-workers in other departments. Thus, everyday problems in carrying out their job tasks reflected the reconfiguration of the horizontal and vertical axes of the productive system of the local authority. As a result, tasks were reconstituted and contact centre operators became involved in new and largely unrecognised kinds of interactions that called for distinctive knowledge and skills. This entailed looking backwards towards the service department as well as forwards to the caller, often during calls themselves.

In some ways the jobs of call centre operatives appear fairly mundane and their learning environments relatively restricted, for example answering predictable enquiries over the phone or providing routine services to callers via computer screen. However, two aspects of their position within the horizontal and vertical axes of the productive system propelled call centre operatives towards more 'expansive' forms of learning. The service ethic of the call centre drew operatives into providing more intensive and time consuming responses to callers. Some operatives started to develop in-depth knowledge about specialist areas of expertise. In addition, interactions between call centre operatives and staff in service departments, conducted on behalf of callers, increasingly required operatives to develop skills in negotiation. Hence, operatives found that a growing minority of encounters with the public went beyond these boundaries. For call centre operatives this made their work more interesting but also posed problems. It was unclear whether senior managers intended, desired or perhaps even recognised this development.

WALF, then, pinpoints the contradictory demands on these call centre operatives. They found themselves at the fulcrum of a series of different pressures, channeled by the reshaped horizontal and vertical axes of the productive system of the local authority. WALF thus identifies a key policy issue for managers responsible for developing the learning environments of employees; that is, the importance of understanding the dynamic of the everyday learning environments of small groups of employees in terms of the overall configuration of organisational relationships.

More specifically, this case study also points to the importance of giving careful consideration to the impact of budget reductions on learning environments within organisations. In this particular local authority, budget cuts were driven by the need to make efficiency savings following the Gershon Review (HM Treasury, 2004). Leaders of the council reasoned that it made better sense to reconfigure the overall structure of the council in ways which delivered the same, or indeed better, services for less money. This strategy was motivated by a desire to respond to the situation in an intelligent and creative manner but also this provided a cloak which legitimised a conscious and deliberate drive to shift the balance of power within the council. This suggests that the current deficit reduction strategy (Cabinet Office, 2010) can have profound implications for the learning environments of some workers depending on how these cuts are made at the local level. Plans to devolve power to frontline staff and the end-users of public services will fundamentally shift the patterns of power and control exercised within different productive systems. Using WALF to understand these relationships could help align public sector reform with the creation of more 'expansive' learning environments.

Implications for Policy and Practice

WALF allows us to show how each learning environment comprises a dynamic interplay between processes generated within workplaces and those emanating from wider structures and stages of the productive system. These shift, change and re-organise, like the shapes in a kaleidoscope. WALF highlights this dynamic process and so helps to override tendencies in some policy-makers, practitioners and researchers to account for differences between workplace learning environments only in terms of fixed variables, such as sector, size, and market. Other researchers emphasise employee characteristics, dispositions and biographies as important influences. However, in seeking to demonstrate the power of individual agency, these researchers can sometimes lose sight of the contextual factors highlighted by WALF.

In this Praxis paper we highlight four general implications for policy-makers, practitioners and researchers. All have a bearing on the search for more effective ways of leveraging up employer demand for and use of skills, training and learning.

First, WALF **challenges the notion that learning can be viewed as a 'bolt on' or one-off intervention that will enhance productivity and improve business performance.** Our evidence suggests that the nature of, and access to, learning across and within different sectors of the economy are dependent upon a range of factors that are closely interconnected. This requires that stakeholders take a much more holistic approach to the development of strategies designed to improve and expand workplace learning. Such an approach requires them to look beyond the workplace to the structures and stages of production within which economic activity takes place.

For example, this sheds light on the current policy debate surrounding the business benefits of the 'time to train' right introduced in April 2010 for employees working in large organisations and planned to cover all workers from April 2011 (pending a review at the time of writing). The right can only be exercised where there is a demonstrable case that the study or training undertaken will lead to benefits to the business. Moreover, this statutory right gives employees an incentive to find ways in which their jobs can be 'grown' through training for the benefit of themselves and the organisations for which they work (BIS, 2010). However, WALF suggests that without changes made to the structures and stages of production the business case for learning is unlikely to be enhanced significantly by these rights – relying on employee demands alone will not be enough to prompt a learning revolution.

Secondly, WALF provides a diagnostic tool for identifying the characteristics of the relationship between workforce development and organisational performance. **By using WALF, organisations can develop their own specific strategies for improving learning, skills and performance.** Through this process, practitioners will achieve a much better understanding of the productive system they inhabit, and will begin to see what holds workplace learning back and what needs to be changed to propel it forward. As a result, they will be able to develop a greater self-awareness of what is, and what is not, possible and how, and where, changes can be made. In this way, the conceptual toolbox provided by the Working as Learning Framework represents a durable, reusable and on-going source of guidance for policy-makers, practitioners and researchers.

Thirdly, our evidence has shown the variety of learning that occurs as part of, or is stimulated by, everyday work activity. Learning can be stimulated and improved by the intelligent use of workplace artefacts and the collapsing of internal boundaries to allow employees with different skill sets and experiences to work together. The resources for learning lie all around in the workplace and in the wider productive system, but they need to be mobilised in order to play their part in supporting the sharing and creation of ideas. All work involves and generates learning, but this is not always harnessed and recognised. Too many workplaces (across the public and private sectors of the economy) consider learning as an 'event', as a specially constructed phenomenon, and, at worst, as something separate from work itself.

This reinforces **the importance of policy levers** which take an integrated approach to workforce and business development, such as Investors in People. Investors in People offers a business improvement tool designed to help organisations of all sizes and sectors develop performance through their people. It provides tailored assessments designed to support organisations in planning, implementing and evaluating effective strategies. Crucially, it is not prescriptive about the form of learning and therefore recognises and celebrates learning in all its forms. One way in which policy-makers could incentivise organisations to promote learning wherever and however it takes place is to make Investors in People recognition a condition of public procurement or access to public funding. WALF provides the research evidence which can be used to constructively critique and develop the use of such policy levers.

Fourthly, WALF shows that there are **some work processes and productive systems which severely curtail opportunities for discretion and the opportunities for 'expansive' learning environments.**

'Taylorised learning' has become, in some circumstances, the inevitable consequence of 'Taylorised' work, relying too heavily on traditional didactic teaching methods in which learners play a passive role (i.e. 'restrictive' rather than 'expansive'). This has a number of policy implications and suggests that in such environments, a general increase in workplace learning will not automatically lead to enhanced business performance. Hence, business practices which promote learning in some circumstances may not do so in others. For example, not all schemes exhibiting the hallmarks of 'licences to practice' are backed by public regulation and, as we have seen earlier, there is no guarantee that they raise employee skills, enhance career prospects and lead to improvements in business performance. Similarly, the success of features of high performance working, such as greater employee involvement or performance related pay, will be mediated by the nature of the productive system and the scope this allows for 'expansive' rather than 'restrictive' learning at the level of the workplace.

This means that in some circumstances, changes made at the workplace-level alone will not be enough. WALF can highlight instances where 'restrictive' learning environments have resulted from business models following a low skills trajectory. The key question for policy-makers, therefore, becomes where is it appropriate, and how, can employers be encouraged to alter their productive systems and pursue business models which create more 'expansive' learning environments.

Conclusion

Workplaces are dynamic and multi-faceted entities which hold the solutions to many of the problems we face in meeting the UK's productivity and skills challenge. However, in this Praxis paper, we have argued that, in order to improve learning at work genuinely, the political economy of work itself needs to be both understood and changed (see also Felstead et al., 2009). This entails moving from the view that learning is a silver bullet to be fired when things are going wrong in the workplace to one in which learning is an integral part of the work process. We welcome the promotion of the concept of skills utilisation by the UK Commission as an important contribution to the skills debate. This is helping to shift the dominant policy focus away from simply increasing the stocks of qualifications held by individuals to a much more nuanced debate about how we can improve the quality of workplaces and, ultimately, the quality of jobs. This requires a radical rethink of employer practices and policy responses so that, rather than separate and competing activities, 'learning to work' and 'working to learn' are simultaneously carried out and maximised.

Praxis Points

The Working as Learning Framework (WALF) highlights the range of informal learning that can occur as part of everyday work activity and raises important questions about how the way in which workplaces and business processes are organised can create or restrict opportunities for the development and utilisation of skills. It also prompts wider questions about the role of public policy at the workplace level.

Here **Katherine Chapman**, Policy Analyst at the UK Commission for Employment and Skills poses some of the questions raised by this paper.

- How can UK businesses be supported to understand, harness and maximise the 'natural', informal learning opportunities that exist in the workplace?
- How can learning in the workplace be understood and measured beyond formal qualification attainment?
- How can employers be incentivised and supported to embed workforce development in their business plans?
- WALF suggests 'changes made at the workplace-level alone will not be enough' (p.17). How can changes in the structure of production create new opportunities for workplace learning? How can employers be supported to re-organise work processes, re-design jobs and develop new business strategies? Is there a role for public policy in this?
- How can policy-makers support employers to identify the 'pressure points' in their sector's productive systems and identify where the potential for 'leverage over learning' is greatest?
- Where learning environments are diagnosed as 'restrictive' what levers are available to encourage more learning at work? What is the role of improved leadership and management?
- Is there a role of employer networks and group training associations in this?
- Is there an opportunity for public sector reform to create opportunities for more 'expansive' learning environments, for example by placing greater trust in providers and frontline staff?

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UKCES

3 Callflex Business Park
Golden Smithies Lane
Wath-Upon-Deerne
South Yorkshire
S63 7ER

T +44 (0)1709 774 800

F +44 (0)1709 774 801

UKCES

28-30 Grosvenor Gardens
London
SW1W 0TT

T +44 (0)20 7881 8900

F +44 (0)20 7881 8999

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